

Web-based Applications Support Bird Conservation Planning

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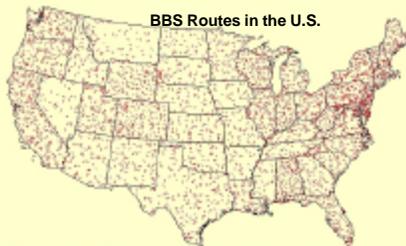
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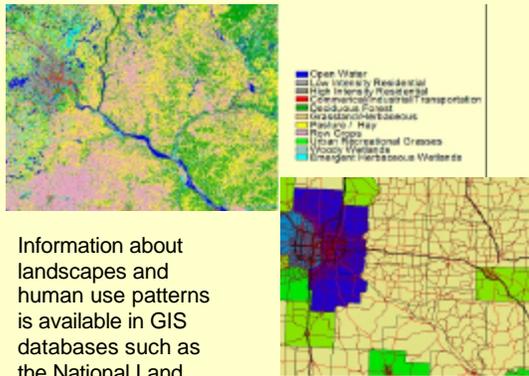
Introduction

Conservation planning to meet the needs of migratory birds is one of the biggest challenges facing many federal agencies. The North American Bird Conservation Initiative (NABCI) calls for on-the-ground initiatives designed to support populations of all bird species. At present, managers and planners at state and federal levels do not have simple ways to access, summarize, or synthesize data from diverse data sources. We are summarizing bird, land use, and human census information at scales relevant to planners. We anticipate that these summaries will be useful for developing location-specific bird conservation plans. We are developing applications using an ArcIMS platform that will allow managers to access maps and run analyses via the Internet.

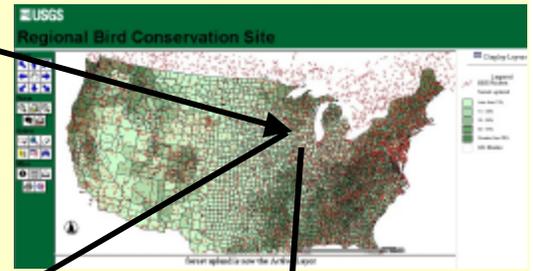
Bird and landscape information applicable to conservation planning exists, but is not generally available to managers. For example, 37 years of data describing bird populations exists in the Breeding Bird Survey (BBS) database.



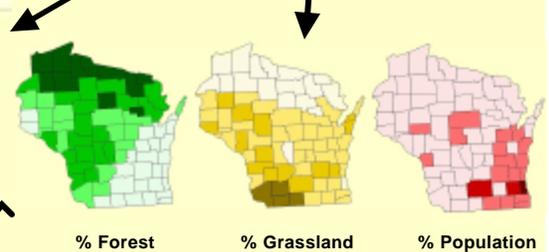
The website allows users to select routes or groups of routes from the Breeding Bird Surveys. They can also select states, counties, or an area surrounding their management unit for a summary of land uses.



Information about landscapes and human use patterns is available in GIS databases such as the National Land Cover Database (NLCD) and the U.S. Census.



Common Name	Ranked Abundance	Total Count
Red-winged Blackbird	1	30,061
House Sparrow	0.737	22,148
Common Grackle	0.487	14,650
European Starling	0.348	10,459
Mourning Dove	0.249	7,485
Northern Cardinal	0.194	5,843
Eastern Meadowlark	0.194	5,827
Barn Swallow	0.191	5,746
Northern Bobwhite	0.183	5,516
Indigo Bunting	0.182	5,485
Belt's Vireo	0	4
Sharp-shinned Hawk	0	4
Ring-necked Pheasant	0	4
American Woodcock	0	3
Mississippi Kite	0	3
Broad-winged Hawk	0	3
Northern Harrier	0	2
Black-and-white Warbler	0	2
Blue-winged Teal	0	2
Hooded Warbler	0	2
Yellow-headed Blackbird	0	1
Yellow-crowned Night-Hero	0	1
Sedge Wren	0	1



Users obtain a list of bird species ranked by abundance for any desired location, as well as summaries of land use and U.S. Census data.



U.S. Fish and Wildlife Service staff Lara Hill and James Nissen

We are adding new software to our GIS toolbox. The Bird Conservation ArcIMS site gives users the ability to perform several ArcView-like functions without the need for special software.

Conclusion

Our goal is to provide land managers with web-based tools for evaluating the bird assemblages and land uses in landscapes surrounding existing or planned management units.

We are working to incorporate these applications into a node in USGS's National Biological Information Infrastructure (NBII; www.nbi.gov). NBII provides online analytical tools to help people utilize, explore, understand, and better manage our nation's natural resources. The NBII Bird Conservation node provides access to data and information in support of bird conservation across North America.

